

REMARKS

Claims 1-54 are now pending in the application. Claims 5, 14, 24, 32, 37, 41, and 51 are currently amended. The amendments to the claims contained herein are of equivalent scope as originally filed and, thus, are not narrowing amendments. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 5, 14, 24, 32, 41 and 51 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed.

Applicants have amended the claims according to the Examiner's suggestions merely to overcome the rejection to the claims under 35 U.S.C. § 112. The amendments to the claims contained herein are of equivalent scope as originally filed and, thus, are not narrowing amendments. No new matter has been added.

REJECTION UNDER 35 U.S.C. § 101

Claim 37 stands rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed.

Applicants have amended the claim to include that the computer program is stored on a computer readable medium. The amendment to Claim 37 is of equivalent

scope as originally filed and, thus, is not a narrowing amendment. No new matter has been added.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 3, 6, 10, 17, 19, 21-23, 30, 33, 44, 46, 48-50 stand under 35 U.S.C. § 102(b) as being anticipated by Bauchot et al. (U.S. Pat. No. 5,644,576). This rejection is respectfully traversed.

With respect to Claim 1, Bauchot does not at least show, teach or suggest memory to store an image comprising a plurality of virtual machines and only one multi-tasking operating system. Each of the virtual machines comprises a wireless network application to execute on the multi-tasking operating system. A processor executes the virtual machines.

As best understood by Applicants, Bauchot is directed to a typical media access control scheme for a WLAN. According to the Examiner, a computer 50 stores application programs 72 that may be considered virtual machines. Each of the application programs allegedly includes a wireless network application to execute on an operating system. A microprocessor executes the application programs.

Applicants have carefully reviewed Bauchot and fail to find any disclosure, teaching, or suggestion that the application programs 72 are virtual machines. Virtual machines, as discussed in Paragraph [0023], include software that creates a virtualized environment between the computer platform and its operating system and allow one physical resource to function as multiple physical resources. In other words, Claim 1 provides a network device having limited physical resources with multiple virtual

machines that include multiple wireless applications. The network device may switch between wireless applications of the virtual machines without having to reboot functional requirements for each wireless application. Switching between typical wireless devices generally requires reboots of functional requirements.

Bauchot does not discuss how the processor switches between application programs, nor does Bauchot even mention that the application programs are virtual machines.

Further, according to the Examiner, each application program comprises a wireless network application, according to Column 5, Lines 65-67. Column 5, Lines 65-67 recite: "(t)he computer 50 runs an operating system 70 which supports one or more user application programs 72." Applicants carefully reviewed this section and fail to find the claimed feature. Instead, it appears that the user application programs are typical user interface programs. The user application programs 72 are all included in (but do not include or comprise) a single wireless device, such as a remote station or base station, as seen in Fig. 2. Bauchot is silent as to whether the user application programs each include wireless application programs.

Each of the claimed virtual machines comprises a wireless network application to execute on the multi-tasking operating system. Examples of wireless network applications are wireless network access points, wireless network clients, wireless network point-to-point bridges, wireless network multi-point bridges, and wireless network repeaters. Because Bauchot does not at least teach, disclose, or suggest that the user application programs are virtual machines each including a wireless application device, Claim 1 is believed to be allowable.

For anticipation to be present under 35 U.S.C §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. Scripps Clinic & Res. Found. V. Genentech, Inc., 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be inherent or expressly disclosed and must be arranged as in the claim. Constant v. Advanced Micro-Devices, Inc., 7 USPQ.2d 1057 (Fed. Cir. 1988).

Therefore, Claim 1 is allowable for at least these reasons. Claims 17, 28, 37 and 44 are allowable for at least similar reasons as Claim 1. Claims 2-16, 18-27, 29-36, 38-43, and 45-54 ultimately depend from Claims 1, 17, 28, 37, and 44 and are allowable for at least similar reasons.

Claims 37 and 39-43 stand under 35 U.S.C. § 102(e) as being anticipated by Meredith et al. (U.S. Pat. No. 2003/0212761). This rejection is respectfully traversed.

With respect to Claim 37, Meredith does not at least show, teach or suggest a plurality of virtual machines and only one multi-tasking operating system. Each of the virtual machines comprises a wireless network application.

As best understood by Applicants, Meredith is directed to a process kernel that connects application software to the hardware of a computer. According to the Examiner, application programs 235 are virtual machines that each comprise a wireless network application. However, Meredith does not teach, disclose, or suggest that the application programs 235 are virtual machines.

Meredith uses virtual machines in various process kernels, for example process kernels 302C, 304C, as is common; but these process kernels do not include wireless

network applications. Further, the process kernels 302C, 304C do not appear to be included within the application programs 235.

Therefore, Claim 37 is believed to be allowable for at least the above reasons. Claims 39-43 ultimately depend from Claim 37 and are also believed to be allowable for at least similar reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 4-5, 7, 8, 12-16, 20 24, 25-26, 31-32, 34-35, 47, 51-53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bauchot et al. in view of Meredith et al. This rejection is respectfully traversed.

With respect to Claim 4, Bauchot and Meredith at least do not show, teach or suggest that the processor resumes executing one of the virtual machines after executing another of the virtual machines. The one of the virtual machines copies the data from the respective virtual machine queue to the processor queue.

As best understood by Applicants, Bauchot does not include virtual machines, as discussed above. Further, the Examiner recognizes that Bauchot fails to disclose a virtual machine queue element and processor queue element as claimed. The Examiner alleges that Meredith describes the claimed features in Paragraph [0048] that provides:

The queue 310 through which processes communicate can take various forms, such as databases, channels, or other suitable structured stores. Because the computing devices 302, 304 can be located at geographic locations well away from each other, processes 302B, 304B cannot communicate via shared memory. Suitable communication means, such as the queue 310, include technology that enables processes 302B, 304B while running at different times to communicate across heterogeneous networks and systems that may be temporarily offline... When the queues

310-316 are databases, they are files composed of records, each containing fields together with a set of operations for searching, sorting, recombining, and other processing functions, organized in multiple tables, each of which are data structures characterized by rows and columns, with data occupying or potentially occupying each cell formed by a row-column intersection.

Applicants have carefully reviewed Paragraph [0048] and fail to find the virtual machine queues and processor queue functionality as claimed.

Each virtual machine of Claim 4 creates a copy of data in the processor queue when the processor is executing that virtual machine. The virtual machine stores the copy of the data when the processor is executing a different virtual machine and reloads the data to the processor queue when the processor is again executing the original virtual machine. The queues of Meredith, on the other hand, merely appear to include data relating to the implementation of kernel applications but do not appear to copy that data from a processor as claimed.

Although Paragraph [0048] does discuss use of queues to run processes at different times, no reason is provided as to why the queues of Meredith should be modified as proposed. The claimed processor stores data to be processed for a virtual machine being executed by the processor in a processor queue. Each virtual machine includes a virtual queue that stores a copy of the data to be processed by that virtual machine (for example, as of the time the processor stops executing that virtual machine) while the processor is executing another virtual machine. When the processor resumes executing the first virtual machine, the first virtual machine copies data from its queue to the processor queue. In this way, the processor does not lose

data when switching between virtual machines or does not require rebooting of data as would be the case in Meredith.

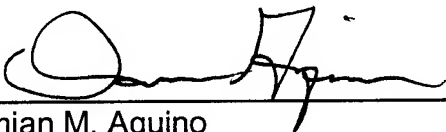
Therefore, Claim 4 is allowable for at least the above reasons. Claims 4-5, 7, 8, 12-16, 20 24, 25-26, 31-32, 34-35, 47, 51-53 are allowable for at least similar reasons as Claim 4.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: August 2, 2007

By: 
Damian M. Aquino
Reg. No. 54,964

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

DMA/JHP